

DERWENT-ACC-NO: 1999-153313

DERWENT-WEEK: 200063

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TITLE: Diagnosis, treatment and prevention of diabetes and other autoimmune diseases - using antibodies reactive with anti-T-cell receptor Vbeta antibody

INVENTOR: MATOSSIAN-ROGERS, A

PATENT-ASSIGNEE: MATOSSIAN-ROGERS A[MATOI]

PRIORITY-DATA: 1998GB-0010676 (May 18, 1998) , 1997GB-0015281 (July 21, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES MAIN-IPC		
CN 1264426 A C12N 015/09	August 23, 2000	N/A 000
WO 9905175 A2 C07K 016/00	February 4, 1999	E 072
AU 9884517 A C07K 016/00	February 16, 1999	N/A 000
EP 998556 A2 C12N 015/09	May 10, 2000	E 000
BR 9810118 A C07K 016/00	August 8, 2000	N/A 000

DESIGNATED-STATES: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI G B GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW A L AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
CN 1264426A July 20, 1998	N/A	1998CN-0807380
WO 9905175A2 July 20, 1998	N/A	1998WO-GB02151

AU 9884517A	N/A	1998AU-0084517
July 20, 1998		
AU 9884517A	Based on	WO 9905175
N/A		
EP 998556A2	N/A	1998EP-0935160
July 20, 1998		
EP 998556A2	N/A	1998WO-GB02151
July 20, 1998		
EP 998556A2	Based on	WO 9905175
N/A		
BR 9810118A	N/A	1998BR-0010118
July 20, 1998		
BR 9810118A	N/A	1998WO-GB02151
July 20, 1998		
BR 9810118A	Based on	WO 9905175
N/A		

INT-CL (IPC): A61K038/16; A61K039/395 ; C07K014/435 ;  
 C07K016/00 ;  
 C07K016/42 ; C12N015/09

RELATED-ACC-NO: 1999-073525

ABSTRACTED-PUB-NO: WO 9905175A

BASIC-ABSTRACT: Use as a pharmaceutical or diagnostic reagent of one of the following is new: (a) mono- or poly-clonal antibodies (Ab1), or equivalent ligand, reactive with an anti-TCR (T-cell receptor) V beta antibody (Ab2); (b) (oligo- or poly-)peptide or protein (I), bound to Ab1, or its equivalent ligand, that is not Ab2; (c) genomic DNA, cDNA or RNA (II) encoding Ab1, equivalent ligand or (I); (d) bacteriophage clone, plasmid or viral vector containing (II), designated (IIa), that encodes the ESRP1 protein (endocrine secretion regulatory protein). Also new are (1) any (I), designated (Ia), containing the ESRP1 sequence (of 410 amino acids, given in the specification); (2) any nucleic acid (IIa) encoding ESRP1; (3) bacteriophage clone, plasmid or viral vector containing (IIa); (4) host cells stably transfected or transformed with a plasmid or vector of (3).

USE - Ab1, (I) or (Ia) are used to treat or prevent (non-)insulin-dependent diabetes mellitus, (non-)organ-specific autoimmune diseases,

cardiovascular diseases, cachexia, cancer and generally any condition associated with anti-phospholipid (PL) antibodies, hyperinsulinaemia and insulin resistance. Ab1, and equivalent ligands, are also used to detect and quantify natural autoantibodies (Ab3) in blood, plasma and serum, for determining susceptibility to autoimmune disease and for prognosis of disease or treatment efficiency. The method is based on the idea that Ab3 are responsible for autoimmune diseases, e.g. in the case of diabetes they bind to proteins on alpha -cells, resulting in dysregulation of insulin secretion and then beta -cell death.

CHOSEN-DRAWING: Dwg.0/7

TITLE-TERMS:

DIAGNOSE TREAT PREVENT DIABETES DISEASE ANTIBODY REACT ANTI CELL RECEPTOR ANTIBODY

DERWENT-CLASS: B04 D16 S03

CPI-CODES: B04-B04D4; B04-B04D5; B04-E02; B04-E03; B04-E08; B04-F0100E; B04-F1100E; B04-G01; B04-G21; B04-G22; B04-H01; B04-N04; B11-C07A; B12-K04A; B14-E11; B14-F01; B14-F02; B14-G02D; B14-H01; B14-S04; D05-H09; D05-H10; D05-H11; D05-H12A; D05-H12E; D05-H14; D05-H17A2;

CHEMICAL-CODES:

Chemical Indexing M1 \*01\*

Fragmentation Code  
M423 M710 M903 P433 P520 P522 P631 P633 P816 P831  
Q233 V600 V611

Chemical Indexing M1 \*02\*

Fragmentation Code  
M423 M710 M903 P433 P520 P522 P631 P633 P816 Q233  
V752 V901 V902

Chemical Indexing M1 \*03\*

Fragmentation Code  
M423 M710 M903 Q233 V753

Chemical Indexing M1 \*04\*

Fragmentation Code  
M423 M710 M903 N135 Q233 V500 V540 V560 V754

SECONDARY-ACC-NO:  
CPI Secondary Accession Numbers: C1999-045200

RESULT 1  
X22754  
ID X22754 standard; DNA; 1231 BP.  
XX  
AC X22754;  
XX  
DT 07-JUN-1999 (first entry)  
XX  
DE Human ESRP1 DNA.  
XX  
KW ESRP1; treatment; prevention; non-insulin-dependent diabetes mellitus;  
KW non-organ-specific autoimmune disease; cardiovascular disease; cancer;  
KW cachexia; anti-phospholipid antibody; hyperinsulinaemia; T-cell receptor;  
KW insulin resistance; monoclonal; polyclonal; anti-TCR; V beta antibody;  
KW detection; autoantibody; blood; plasma; serum; autoimmune disease; human;  
KW alpha-cell; dysregulation; insulin secretion; beta-cell death; ss.  
XX  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
FT CDS 1..1231  
FT /\*tag= a  
FT /product= "ESRP1"  
FT /partial  
FT /codon\_start= 2  
XX  
PN WO9905175-A2.  
XX  
PD 04-FEB-1999.  
XX  
PF 20-JUL-1998; 98WO-GB02151.  
XX  
PR 18-MAY-1998; 98GB-0010676.  
PR 21-JUL-1997; 97GB-0015281.  
XX  
PA (MATO/) MATOSSIAN-ROGERS A.  
XX  
PI Matossian-Rogers A;  
XX  
DR WPI; 1999-153313/13.  
DR P-PSDB; W93254.  
XX  
PT Diagnosis, treatment and prevention of diabetes and other autoimmune  
PT diseases - using antibodies reactive with anti-T-cell receptor Vbeta  
PT antibody  
XX  
PS Disclosure; Fig 6; 72pp; English.  
XX  
CC This sequence encodes the human ESRP1 protein. This protein or  
CC antibody fragments generated from it are used to treat or prevent  
CC (non-)insulin-dependent diabetes mellitus, (non-)organ-specific  
CC autoimmune diseases, cardiovascular diseases, cachexia, cancer and  
CC generally any condition associated with anti-phospholipid antibodies,  
CC hyperinsulinaemia and insulin resistance. Mono- or poly-clonal antibodies  
CC and equivalent ligands reactive with an anti-TCR (T-cell receptor) V beta  
CC antibody are also used to detect and quantify natural autoantibodies in  
CC blood, plasma and serum, for determining susceptibility to autoimmune

CC disease and for prognosis of disease or treatment efficiency. The method  
CC is based on the idea that autoantibodies are responsible for autoimmune  
CC diseases, e.g. in the case of diabetes they bind to proteins on  
CC alpha-cells, resulting in dysregulation of insulin secretion and then  
CC beta-cell death.

xx

SO Sequence 1231 BP; 287 A; 388 C; 362 G; 194 T; 0 other;

Query Match 41.2%; Score 1088.8; DB 20; Length 1231;  
Best Local Similarity 94.9%; Pred. No. 1.4e-224;  
Matches 1198; Conservative 0; Mismatches 12; Indels 52; Gaps 5;

Qy 1479 cccgtttgcaccgtccgggttgcgggtgtcctggcttgctgccacccacaacctcta 1538  
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Sj 189 -111- cccgtttgcaccgtccgggttgcgggtgtcctggcttgctgccacccacaacctcta 189

Qy 1719 cagccctggcatgggaggagccgcagctagctggcaggctggccgtgaccgggtctc 1778

Ov 1779 ctcactcacctccaagctqatccgttcqcacccaaccactgccccaaacagaaaaccaacat 1838

Db 430 ctcactcacccaagctgatccgtcgacccaccactgccccaaacagaaaccaacat 489  
Qv 1839 tccccaaaagacccacggctgaaggagttctgtccccagccccccatgttccctgccac 1898

Db 547 ccctacaacctcaggccactggagacgcaggaggacaaggacacagcagaagacag 606

Db 607 cagcaactgctgacagatgggacgacgaaactggggcagcctggagcaggaggccgagtc 666

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Db 1219 aa 1220